

## MONO COUNTY GENERAL PLAN DRAFT EIR



### SECTION 4.9 RECREATION

#### 4.9.1 INTRODUCTION AND SUMMARY

This section describes existing and proposed recreational opportunities and facilities in Mono County, and the potential impacts on these resources that may occur in association with the proposed comprehensive update to the county's *RTP* and *General Plan* and related planning initiatives. Information for this section is based in part on data from the Mono County MEA (Ch. IX, Outdoor Recreation, 2010, available at <http://www.monocounty.ca.gov/>), as well as other sources as cited in the text. This EIR incorporates NOP comments received from the California Department of Parks and Recreation (CDPR), noting that CDPR is a trustee agency with responsibility for two state parks in Mono County (Bodie State Historic Park, and Mono Lake Tufa State National Reserve), clarifying that CDPR (and not 'State Department of Parks and Recreation') is the correct agency title, and requesting that the EIR analyze non-native invasive weed prevention, detection and control; and two aquatic invasive species prevention, detection and control (please see EIR §4.4, Biology, for discussion of nonnative weeds and aquatic invasive species). The full text of CDPR's comment letter is provided in Appendix B; the full text of the RTP is provided on the County website: at <http://monocounty.ca.gov/planning/page/mono-county-general-plan-update>. Key findings are summarized in the table below.

#### SUMMARY OF GENERAL PLAN IMPACTS & POLICY MITIGATIONS FOR RECREATION

<b>IMPACT LU 4.9(a):</b>	<b>INCREASED DEMAND ON RECREATIONAL FACILITIES</b>
Pre-Mitigation Significance:	Less than Significant Impacts
Mitigating Policies:	See Table 4.9-3 in Appendix D
Residual Significance:	Less than Significant Impacts
<b>IMPACT LU 4.9(b):</b>	<b>ENVIRONMENTAL EFFECT OF RECREATIONAL FACILITIES</b>
Pre-Mitigation Significance:	Potentially Significant Adverse Impacts
Mitigating Policies:	See Table 4.9-3 in Appendix D
Residual Significance:	Potentially Significant Adverse Impacts

#### 4.9.2 KEY TERMS USED IN THIS SECTION

**USFS Niche Settings.**<sup>1</sup> A description of the unique nature-based, dispersed recreation settings offered by the USFS, including undeveloped settings, built environments reinforcing the natural character, and wildland settings that complement enjoyment of these special places.

#### 4.9.3 BASELINE OVERVIEW

##### 4.9.3.1 Mono County MEA (Outdoor Recreation).

The MEA notes that recreation plays an essential role in the Mono County economy. County residents are often far outnumbered by visitors to the area; in many county communities, both the built environment and the basic

<sup>1</sup> USFS, *Recreation Agenda*, USFS website: [http://www.fs.fed.us/recreation/programs/strategy/rec\\_agenda\\_ht.html](http://www.fs.fed.us/recreation/programs/strategy/rec_agenda_ht.html)

infrastructure are specifically designed to meet the needs and demands of visitors. Outdoor recreation is no less important to local residents, many of whom moved to Mono County to enjoy these opportunities. The breadth and extent of Mono County's inventory of recreation opportunities far exceeds current and foreseeable demands, but the County actively engages in planning to ensure that the balance is maintained in future years.

Recreation access is among the issues faced in planning, and the County has sought to identify areas where recreation access has been reduced (often by private property owners), with the goal of securing and enforcing access easements. User conflict is another area of concern, often between motorized and non-motorized recreationists, but also between hunters and anglers, and mountain bikers and hikers and equestrians; education and prudent segregation of activities have been key tools in addressing these issues.

#### 4.9.3.2 Mono County Eastern Sierra Regional Trail System, Bikeways and Trails.<sup>2</sup>

Surveys conducted by the Inyo National Forest and the Humboldt-Toiyabe National Forest show that hiking and walking are among the most popular activities in both areas. Responding to that finding, Mono County Community Development Department has introduced the concept of an Eastern Sierra Regional Trail (ESRT) system that would link communities and showcase the county's unique cultural, geographic and geologic features. The ESRT would establish a trans-county, non-motorized trail that begins at Topaz Lake in the north and runs to Round Valley in the south, providing nearly 350 miles of trail with linkages to numerous other trail systems along the way that would create smaller recreational loops within the overall ESRT. The ESRT would include two primary trail systems, each spanning the length of Mono County and including a Historic Trail and a Community Trail. The Historic Trail follows such features as historic toll roads, abandoned railroad rights of way, and canals. The Community Trail would be a more direct connection between Eastern Sierra communities. The primary conceptual alignment for both trails is shown in Figure 4.9-1; a description of trail segments is available at <http://monocounty.ca.gov/planning/page/mono-county-general-plan-update>.

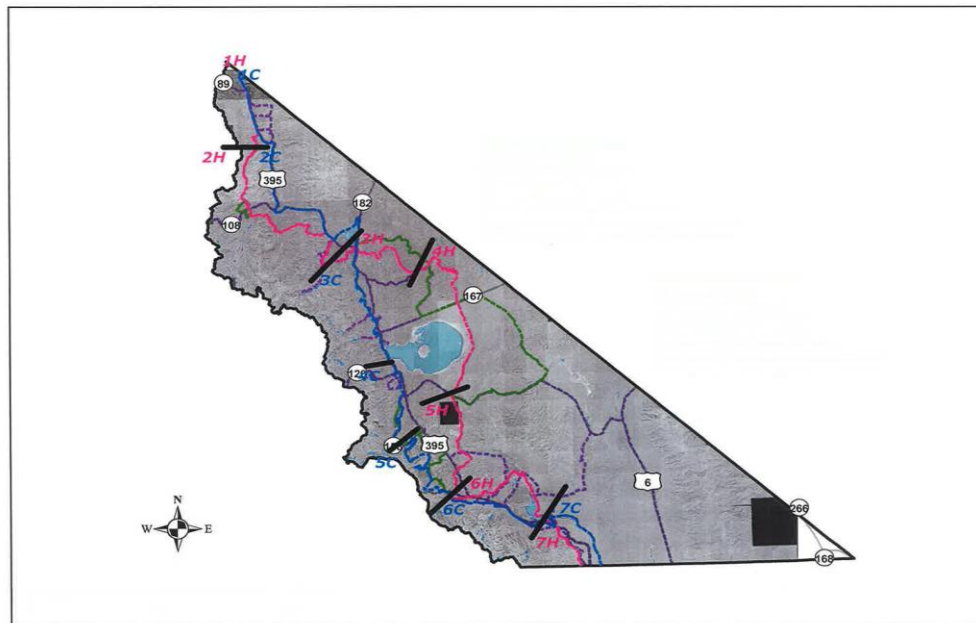


FIGURE 4.9-1: ESRT Historic Trails (in RED) and Community Trails (in BLUE)

<sup>2</sup> Mono County, 2005 RTP, *Eastern Sierra Regional Trail Initial Release: Draft Proposal*.

#### 4.9.3.3 Mono-Yosemite Gateway Trail and Local Trails<sup>3</sup>

Mono County Planning Division is also working with the Mono Basin RPAC and a wide range of community partners and public agencies to explore creation of a Mono-Yosemite Gateway Trail. The Trail would connect downtown Lee Vining with nearby recreation areas including Mono Lake, Lower Lee Vining, and Yosemite National Park. Other community efforts will establish a series of local trails in the Bridgeport Valley (including the areas around Poore Lake, Virginia Lakes, and the Bodie Hills). The Bridgeport-area trail maps are now complete, and available on the Bridgeport RPAC website; the concept Gateway Trail is still in the very early stages of planning and will not be completed within the timeframe of the 2015 *RTP/General Plan Update*. However, the County's existing Trails Plan has been updated to reflect project status to date for the various trails planning efforts.

#### 4.9.3.4 Regional Transportation Plan

The trail planning efforts noted above are complemented by the Regional Transportation Plan (RTP), which emphasizes trails and bikeways as modes of transportation (particularly in the Mammoth Lakes vicinity) as well as vital components of the County's goals for outdoor recreation and for reducing vehicle congestion and pollutants and supporting dark sky objectives. The County completed a Trails Plan in 1994 that included a General Bikeway Plan; the Bikeway Plan is now a stand-alone document and both plans are contained within the *Draft RTP*. The overall purpose of the Plan is to establish trail systems that facilitate multi-modal travel and recreation throughout the unincorporated communities. The plan addresses regional routes (to provide access to communities, major recreational areas and trail systems), and community routes (to provide access within communities and surrounding recreational areas). The Trails Plan expands upon and implements policies in the Mono County General Plan as well as community area plans, the RTP, and applicable plans of federal land management agencies.

#### 4.9.3.5 Bicycle Transportation Plan (BTP)

The *Mono County BTP* describes existing bicycle facilities and programs, analyzes the need for future facilities, designates and prioritizes new routes, provides maps, identifies funding sources, and establishes policies and standards for improving bicycle facilities in the unincorporated area of Mono County. The BTP complies with California Streets and Highways Code §891.2 and §891.4 as well as requirements for state Bicycle Transportation Account (BTA) funding applications. The BTP expands upon the General Bikeway Plan contained in the Mono County Trails Plan (1994) and has been designed to complement similar plans in surrounding counties and communities, including the BTP prepared by the Town of Mammoth Lakes, thus working toward an extensive and complete system. Policies in the document recommend that the *Mono County BTP* be reviewed and updated every five years, in compliance with state requirements for Bicycle Transportation Account (BTA) funding and to ensure that the plan remains current.

#### 4.9.3.6 Economic Development Study

In 2009, the Mono County Economic Development Department commissioned a study of recreation and tourism in the county. Results indicated that total annual visitation exceeded 1.5 million; summer leads the tourist year with 38% of all visits, followed by autumn (27.6%), spring (18.8%) and winter (14.9%). The average annual length of stay was 3.1 days, with the longest average stays during winter (3.8 days) and the shortest during autumn (2.17 days). The survey assessed participation in outdoor activities and found that hiking ranked as the single most popular activity (enjoyed by 47.4% of visitors), followed by fishing (38.7%), photography (37.7%), camping (24.7%), downhill skiing (16%) and bird-watching (11.8%). The sport of ice-climbing ranked lowest at 0.2%, but is among the category of unique and challenging activities that is becoming more popular according to USFS surveys for the *Draft National Forest Assessment*. Overall, 29% of respondents cited "outdoor recreation" as the main purpose of their visit; another 38% cited "vacation/pleasure," and 10% said they had come for "sightseeing or to explore the area." The study estimated \$369 million in annual visitor spending in Mono County, of which an estimated 70% is spent on outdoor recreation (roughly \$250 million a year) -- making outdoor recreation the single largest economic engine countywide.

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<sup>3</sup> Mono County website: [http://www.mono.ca.gov/sites/default/files/fileattachments/final\\_may\\_open\\_house\\_flyer.pdf](http://www.mono.ca.gov/sites/default/files/fileattachments/final_may_open_house_flyer.pdf).

The vast majority of recreation in Mono County occurs on federal lands. BLM and the Inyo and Humboldt-Toiyabe national forests build and maintain trails, manage the land for resource protection and recreation, groom cross country skiing trails, manage the lease of ski areas, produce maps, and operate visitor centers. The CDFW manages biological resources that form the basis for substantial hunting, fishing and birding activities in Mono County, and the County has actively engaged in steps to build and maintain an active aquaculture industry, including use of county lands for aquaculture production and funding of nonprofit groups devoted to aquaculture. Recreation clubs and organizations are active in the region, sometimes participating in recreation-related policy development and funding crews and volunteer efforts to assist in maintenance of recreation access points and facilities. Numerous recreational facilities are owned and/or maintained by the County, as listed in Table 4.9-1:

<b>TABLE 4.9-1: COUNTY-OWNED AND/OR MANAGED RECREATION FACILITIES<sup>4</sup></b>				
<b>Location</b>	<b>Facility Description</b>	<b>Address</b>	<b>Date Built</b>	<b>SF</b>
Benton	Community Center	58869 SR 120	1989	3680
Benton	Park Restroom	58869 SR 120	1960	322
Benton	Senior Center	22536 US 6	1974	1970
Bridgeport	Senior Center	123 Emigrant Street	1928	816
Bridgeport	Parks Office and Shop	207 Jack Sawyer Road	1980	3880
Bridgeport	Museum	129 Emigrant Street	1880	3185
Bridgeport	Visitor Center/Senior Center	129 Emigrant Street	1960	1850
Bridgeport	Ballfield Concessions & Restroom	Aurora Canyon Road	2000	620
Bridgeport	Marina Restroom	SR 182	1980	314
Bridgeport	Park Restroom	129 Emigrant Street	1960	160
Bridgeport	Memorial Hall	73 North School St.	1956	10602
Chalfant	Community Center	123 Valley Road	1980	1838
Chalfant	Park Restroom	123 Valley Road	1960	322
Crowley Lake	Community Center	458 South Landing Rd	2003	2981
Crowley Lake	Park Restroom	3609 Crowley Lake Dr.	1984	364
June Lake	Community Center	90 W. Granite Ave.	1970	6691
June Lake	Park Restroom	West Granite	1980	322
June Lake	Ballfield Pump House	North Shore Drive	1999	206
Lee Vining	Museum	129 Mattly Avenue	1989	1200
Lee Vining	Community Center	296 Mattly Avenue	2002	4670
Lee Vining	Park Restroom	129 Mattly Avenue	1965	286
Lundy Canyon	Campground Restrooms	Lundy Lake Road	2000	399
Mono Lake	Park Restroom	Cemetery Road	1973	690
Walker	Community Center (Co. Facility 1976)	442 Mule Deer Road	1957	3874
Walker	Senior Center	399 Mule Deer Road	1988	5168
<b>Total Square Footage: 56,410</b>				
<b>Location</b>	<b>Park Name</b>	<b>Acres</b>		
Benton	Ida Lyn Parkinson	4		
Chalfant	Chalfant Community Park	6.2		
Crowley	Hilton Creek Park	2.5		
Crowley	Crowley Lake Ballfield	5.4		
June Lake	Gull Lake Park	1.5		
June Lake	June Lake Ballfield	5		
Mono Basin	Guss Hess Park	4.3		
Mono Basin	Mono Lake Park	4.2		
Bridgeport	Bridgeport Park	2.1		

<sup>4</sup> Note that the Whitmore Recreation Area, six miles south of Mammoth Lakes, offers a track and sports field, a pool and three ball fields. The facility is operated by the Town of Mammoth Lakes on land leased from LADWP, with funding contributions from Mono County and other sources.

Bridgeport	Bridgeport Ballfield	14
Bridgeport	Bridgeport Marina	5
Walker	Walker Community Park	14
<b>Total Acreage: 68.2</b>		

#### 4.9.3.7 USDA Forest Service, Inyo National Forest Assessment draft.

In 2013, the Inyo NF issued its draft *National Forest Assessment* (known as the 'Forest Plan'), a wide-ranging assessment of ecological, economic, and social conditions, trends, and sustainability that will be used to revise the Inyo NF Land and Resource Management Plan. Recreation is among the topics analyzed in the Plan. Inyo NF conducted nationwide recreation facility analyses (RFAs) to address growing concern about the ability to maintain recreation sites to meet public needs. The goal was to align management of recreation sites and facilities with the forest's recreation program niche and economic capability. Since 2007, national forest recreation programs throughout the country have been guided by recreation program niche statements and complementary niche settings developed through the RFA process. Niche statements broadly define the scope of a national forest's recreation program and highlight those aspects that are distinctive. The Inyo NF has four niche settings (i.e., suited to particular opportunities and activities) that include: hub, scenic routes, explore, and wild. As part of the Draft *Forest Plan* development, public comments and suggestions were received regarding the forest's recreation niche; all agreed upon the importance of recreation on the Inyo NF for tourism, to support the local economy, and for providing valued outdoor experiences to those who live and visit the forest. Beyond this general consensus, the suggestions expressed divergent viewpoints on the focus for management of recreation and the niche of the Inyo NF.

The *Forest Plan* identifies key Inyo NF recreation sites and areas including (in Mono County) the Mammoth Mountain Ski Area, Mammoth Lakes Basin, Mono Lake, June Lake, Reds Meadow, the Ansel Adams and John Muir Wildernesses, and Rock Creek. Most of these are well-known attractions that receive a high amount of concentrated recreation use.

The *Forest Plan* also analyzes recreation trends based on National Visitor Use Monitoring (NVUM) data. The range of recreational activities available on Inyo NF lands is very long (cross country and downhill skiing or snowboarding, snowmobiling, rock or ice climbing and mountaineering, hiking or backpacking, equestrian riding or packing, mountain biking, camping, hunting or fishing, off-highway vehicle driving or riding, picnicking, swimming, boating, paddle boarding, hang-gliding, wildlife watching, fall foliage viewing, visiting historic sites or scenic areas, participating in interpretive programs or tours, resort use, and more). Of these, the five most popular activities (in terms of Inyo NF visitor participation) have consistently remained the top five, and all 10 activities have stayed relatively constant in population between 2006-2011:

- Viewing Natural Features
- Relaxing
- Downhill Skiing
- Hiking/Walking
- Viewing Wildlife
- Driving for Pleasure
- Nature Center Activities
- Developed Camping
- Picnicking (in 2011)
- Resort Use (in 2011)
- Fishing (in 2006)
- Visiting Historic Sites (in 2006)

Use of overnight developed sites and designated wilderness areas greatly increased between 2006 and 2011, and park visitors expressed an overall high degree of satisfaction with the activities currently available on the Inyo NF. The survey also identified areas of concern that included:

- Sanitation concerns in some heavy-use areas that lack facilities such as restrooms;
- An overall trend toward more challenging activities and unique uses; and
- Concerns about crowding and conflict among forest users

Despite concerns about crowding and overuse, annual visitation decreased from 2006 through 2011, from 2.86 to 2.53 million visitors (about a 12% reduction). A significant majority (78.2%) of visitors drive 201 miles or farther to visit the Inyo NF (mostly from Southern California), and the Inyo NF saw increased foreign visitation as well as senior visitation during that five-year period. Although the vast majority of visitors are white (93.3% in both 2006 and 2011), growing

cultural diversity in California and beyond is seen as the single most important demographic trend, with long-term implications for recreation demand, and visitor expectations and satisfaction.

The *Forest Plan* anticipates that climate change will bring warmer temperatures and drier conditions, reducing snowpack and affecting the many winter activities that depend on snow. Changes may include a shift of activities to higher elevations, and more widespread closures due to unsafe wildfire conditions or habitat restoration requirements. Notably, the Plan refers to the close integration of Inyo NF activities with recreational uses and activities available in nearby communities and private lands. This conclusion was strongly supported in Mono County's comments on the Draft *Forest Plan*, which referenced the heavy influence exerted on the county by demands for Inyo NF recreation and concurred that partnering between Inyo NF and the County has played a critical role in maintaining recreation services, activities and facilities. The County also noted its association with Friends of the Inyo, and sought recommendations as to how this effort can be conducted to best enhance the partnership value to Inyo NF. Complementary USFS and county activities optimize use of open space, alleviate pressure on individual facilities, and support economic sustainability. The *Forest Plan* notes that the travel and tourism industry (hotels and restaurants, resorts, gift shops, and other uses) comprise fully 48.6% of employment and 32.2% of earnings in Mono County, and generate transient lodging tax revenues equivalent to 4.6% of total tax revenues.

#### 4.9.3.8 Eastern Sierra Corridor Enhancement Plan.<sup>5</sup>

Along with the Kern Council of Governments (COG), Inyo County LTC and Caltrans, the Mono County LTC is part of an Eastern California Transportation Planning Partnership (ECTPP)<sup>6</sup> that is collaborating to address regional issues and develop a coordinated approach to transportation planning. Recognizing the importance of aesthetic and scenic values to the region, the Partnership created a 2010 *Eastern Sierra Corridor Enhancement Program* that provides a vision for enhancements along the corridor including major regional and local design themes, opportunities, goals, and objectives.

The *Program* recognizes that tourism is the single largest private economic generator along most of the US 395 corridor. Key markets for tourism in the Eastern Sierra include Los Angeles, Reno and San Francisco; overall, California residents account for almost 80% of total visitation (residents of central and Southern California are most apt to be repeat visitors), and Nevada accounts for an additional 7%; international visitors represent 11% of all visitors to the region. The *Program* cites Mono County's efforts to assess recreational access points (as part of a Mammoth Lakes Trails and Public Access [MLTPA] study known as the "Mono County Recreation Access Tool" [MCRAT<sup>7</sup>]) as a key step in assisting decision-makers to better allocate resources for improving or creating traveler facilities and signage. While 65% of visitors listed Mono County as their primary destination, 48% of tourists also visited other Eastern Sierra areas along US 395. Within Mono County, almost half of the visitors stopped in Mammoth, 32% visited Lee Vining, 26% visited the June Lake area, and 21% visited the Mono Lake area. Southern Californians were more likely to visit the June Lake area, and northern Californians and day visitors were more likely to visit Lee Vining. Overall day visitors were more likely to come from Nevada.

Rest areas and viewpoints are important to travelers. Caltrans recommends that rest areas (with parking, drinking water, restrooms, tables and benches, pet areas and information) be spaced about every 60 miles; Mono County does not yet meet that goal, offering only one rest area. However, most of the viewpoints along US 395 are concentrated in Mono County. In 2000, Caltrans developed a rest area system master plan that includes locations for new rest areas. Two of the locations (one in Bodie and one in Topaz) are proposed to be located in Mono County. The *Enhancement Plan* envisions an enhanced system of rest areas that include opportunities for exploration, identify local and regional resources, showcase state-of-the-art building practices and provide adequate facilities and parking for truck traffic as

<sup>5</sup> Kern Council of Governments, Caltrans, Mono County LTC, Inyo County LTC, *Eastern Sierra Corridor Enhancement Program, US 395 & SR 14 Corridors in Kern, Inyo, and Mono Counties*, February 4, 2010. Prepared by Design Workshop, LSC Transportation Consultants, Sierra Business Council, Dynamic Competence and CURES.

<sup>6</sup> The ECTPP is sponsored and supported by the Coalition for Unified Recreation in the Eastern Sierra (CURES); additional partnership members include San Bernardino Association of Governments and Southern California Association of Governments.

<sup>7</sup> MLTPA, *Mono Co. Recreation Access Tool*: <http://mltpa.org/about/contractual-services/mono-county/mono-county-recreation-access-tool-mcrat>



well as automobiles. Similarly, the *Plan* recommends that signage be used not only to identify corridor resources and access points, but also to notify travelers of community businesses – both of which can strengthen the economic health of communities along the corridor.

The *Plan* makes specific mention of winter road closures in Mono County as a significant issue for residents and visitors: the closure of SR 158 (June Lake Loop) can confuse visitors and create the erroneous impression that June Lake is also ‘closed’ to visitors. The *Plan* also recommends better signage about avalanche closures, expected dates when roads will reopen, and (for through travelers to Nevada) the availability of supplies and lodging facilities in Antelope Valley. Billboards and extraneous signage are discouraged because they diminish travelers’ enjoyment of the aesthetic environment. Transit is emphasized as increasingly important, enabling visitors to better access remote areas in an environmentally responsible manner. Equally important is the provision of bicycling and pedestrian opportunities, both of which are widely available throughout Mono County. However, the *Plan* recommends that essentially all communities along the corridor provide more extensive sidewalk systems since pedestrian activity along the corridor is well above the national and statewide average of 2.9% of all trips.

#### 4.9.3.9 City of Los Angeles Recreational Areas and Facilities.<sup>8</sup>

About 75% of LADWP-owned land in Inyo and Mono counties is open to the public for such uses as fishing, hiking, hunting, nature studies, photography, painting, and other daytime recreational uses.<sup>9</sup> Provided below is a partial list of facilities available within Mono County:

- **Mono County Park at Mono Lake.** This park – located just off US 395 about five miles north of Lee Vining -- offers picnic tables, toilets, drinking water, a playground, a boardwalk down to Mono Lake, and birding tours throughout the summer months.
- **Brown’s Owens River Campground.** Located on the Upper Owens River just north of Crowley Lake, this campground offers fishing, hot showers, a snack bar and a store. Brown’s Camp is located off Benton Crossing Road.
- **Camp High Sierra.** Owned and operated by the Los Angeles Department of Recreation and Parks, Camp High Sierra offers 40 public camping spaces and hot showers. The camp is located off Lake Mary Road on the way up to the Mammoth Lakes Basin.
- **Crowley Lake South Landing Campground.** Crowley Lake Fish Camp (lessees of Crowley Lake from the LADWP) operates this campground at South Landing.

### 4.10.4 REGULATORY SETTING

#### 4.10.4.1 Federal Regulations

**United States Forest Service.** Created in 1987, the National Forest Scenic Byway system consists of 138 National Forest Byways, each administrated by the designated USDA Forest Service Chief. The goal of the National Forest Scenic Byway system is to enhance rural community tourism by providing access to scenic and historic viewpoints. Although a federal program, many of the byways are administered under State, County or town jurisdiction and are under their maintenance and responsibility. Byways are eligible for special project assistance and funding through both DOT Federal Lands and other Scenic Byways programs. Five Mono County routes are designated as scenic byways: a) SR 120 West into Yosemite Valley, b) SR 120 East to Benton, c) June Lake Loop, d) SR 203 to Minaret Vista, and d) Rock Creek Road.

#### 4.10.4.2 State Regulations<sup>10</sup>

**SB 99 - Active Transportation Program (ATP).** The ATP was passed in 2013 to encourage increased use of active transportation modes through the following program goals:

<sup>8</sup> LADWP website: <http://wsoweb.ladwp.com/Aqueduct/recuses/campgrounds.htm>.

<sup>9</sup> <http://wsoweb.ladwp.com/Aqueduct/recuses/recreationindex.htm>

<sup>10</sup> Please also see EIR §4.10, Aesthetics, for discussion of the scenic byway and highway programs of Caltrans, BLM and Mono County.

- Increase the proportion of trips accomplished by biking and walking;
- Increase the safety and mobility of non-motorized users;
- Advance the ATP efforts of regional agencies to achieve mandated greenhouse gas reduction goals;
- Reduce childhood obesity through programs eligible for funding (such as the Safe Routes to School Program);
- Ensure that disadvantaged communities fully share in program benefits; and
- Provide a broad spectrum of projects to benefit many types of active transportation users.

Small urban and rural areas with populations up to 200,000 receive 10% of program funding, and another 50% of ATP funding is awarded competitively on a statewide basis; 25% of both categories must benefit disadvantaged communities. The funding may be used for a wide variety of eligible infrastructure and non-infrastructure projects. Note that the criteria for successful applications currently are not well suited to rural areas such as Mono County.

#### 4.10.4.3 Regional and Local Regulations<sup>11</sup>

**Mono County Bicycle Transportation Plan.** The General Bikeway Plan (now being updated as part of the RTP update) provides a comprehensive plan for bicycle facilities in communities throughout the county. The plan focuses on direct and convenient routing for the commuting bicyclist.

**The Town of Mammoth Lakes Trail System Master Plan (MLTSMP).** Adopted in May 1991, the MLTSMP focuses on non-motorized facilities for alternative forms of transportation, including pedestrians, bicyclists, and cross country skiers. The MLTSMP would connect and pass through a series of parks and open-space areas, having numerous access points in and around the town. Because of the significant existing and future traffic congestion in the town and the relatively compact development pattern, non-motorized facilities can be more than recreational facilities. A comprehensive trail system for pedestrian, bicycling, and cross country skiing will reduce auto travel, as well as provide important recreational amenities for visitors and community residents. Experience in similar resort communities has indicated a direct economic benefit from expansion of the trail system. Mammoth has already developed over 7.5 linear miles of trail, 80% of which has been funded with state and federal grant money.

#### 4.10.5 SIGNIFICANCE CRITERIA

Consistent with Appendix G of the CEQA Guidelines, the proposed RTP/General Plan update project will be considered to have a significant impact on recreation if it will:

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

#### 4.9.6 ENVIRONMENTAL IMPACTS AND MITIGATING POLICIES AND ACTIONS

**IMPACT 4.9(a):** Would implementation of the proposed RTP/General Plan Update increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

**LESS THAN SIGNIFICANT IMPACT.** The *Draft RTP* anticipates that recreational use will continue to expand along the US 395 corridor, creating need for additional facilities, and the proposed RTP/General Plan update includes numerous plans and programs to respond to this need. Programs and actions proposed in the *RTP/General Plan* update will expand the scope, extent and variety of recreational activities in Mono County, and support further recreational development in future years with particularly emphasis on resolving identified safety issues. The *RTP* contains numerous policies to

<sup>11</sup> Mono County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP), October 2006.



expand the development of facilities for non-motorized activities, which are currently limited and often occur in areas not designed for such use, including policies that promote the development of regional bike trails, such as the ESRT.

In its discussion of countywide issues, opportunities and constraints, the *Draft Land Use Element* notes that the County's RPACs and community planning groups have generally expressed a desire to maintain rural recreational attributes, preserve the small-town character of existing communities, and protect the county's natural resources. The discussion of issues, opportunities and constraints for community areas identifies many Mono County communities that have stressed the importance of enhanced non-motorized trail and recreation opportunities, as briefly highlighted in the Table 4.9-2 summary of recreational issues, opportunities and constraints that impact many Mono County communities and regions (as identified in the *Draft RTP*).

TABLE 4.9-2: Non-Motorized Trail and Recreational Issues in Mono County	
COMMUNITY AREA	CONSTRAINTS & OPPORTUNITIES
ANTELOPE VALLEY	There is considerable interest in a loop bike route throughout the valley for use by touring bicyclists. There is some interest to provide facilities for pedestrians and equestrians along a similar route, as well as mountain biking opportunities along West Walker River.
	There is the potential to enhance the natural resource-based recreational opportunities in the area, particularly by developing additional recreational facilities and opportunities at Topaz Lake. In planning for additional recreation at Topaz Lake, there is a need to designate a boat launching area to provide boat access within California and to designate restricted boating areas to protect critical water bird nesting and rearing habitat. The Walker River Irrigation District is currently working cooperatively with other agencies to develop a recreation management plan for Topaz Lake.
	There is interest in continuing to expand recreational opportunities for residents and visitors (e.g., proposed fishing regulation change on West Walker River, ATV jamboree, other events).
	There is interest in continuing to promote the Antelope Valley as a tourist destination.
SONORA PASS	The primary issue within the Sonora Junction Planning Area is the continued successful integration of private property use with activities such as recreation and military operations associated with the USMC Mountain Warfare Training Center. There is an opportunity to develop policies that ensure there will be minimal or no impact from military training or operations near private land, and if impacts were to occur, to provide for their disclosure.
SWAUGER CREEK	The central concern in the Swauger Creek area is regulating development, including residential land uses, in order to preserve the natural resources in the area. Residents in the area are also interested in preserving and enhancing wildland recreational and research values in the surrounding area.
	The open-space environment of the area should be recognized as a valid natural resource, and its enjoyment a form of recreation in the true sense of the word. The landowners of the area recognize that this natural environment, its peace, quiet, low density and natural surroundings are some of the values that brought them to this area, and that the preservation of viewsheds in general, and certain specific visual groups in particular, is an important component of the area land use plan. Landowners feel themselves to be the trustees of the resource values of the area and, as such, to be responsible to future generations for the quality of their stewardship.
BRIDGEPORT VALLEY	There is interest in eventually developing local bike trails and/or loops, and hiking/pedestrian trails, in Bridgeport and the surrounding recreational areas
	Residents of Bridgeport are concerned about pedestrian and bicyclist safety along US 395 and SR 182 from the Evans Tract to the dam at Bridgeport Reservoir and State line. The residents recommend as priority items a bike lane on SR 182, and widening the shoulder along US 395 from the Evans Tract to SR 182.
	There is an opportunity to enhance the recreational opportunities available at Bridgeport Reservoir and to protect the wetlands and associated natural resources in the surrounding area.

	These recreational opportunities may include fishing, hunting, kayaking, boating, sailing, and bird watching.
	There is an opportunity to develop and market recreation opportunities in the public lands surrounding Bridgeport.
	There is a need to expand PUD services to accommodate the local and recreational demands of the surrounding area (particularly sewage disposal), but the PUD lacks the economy of scale necessary to fund many necessary infrastructure improvements and maintenance.
	There is an interest in maintaining desirable water conditions in Bridgeport Reservoir, the East Walker River and its tributaries (e.g., reservoir level, in-stream flow and water quality).
	Bridgeport has faced a steady decline of population and economic activity in recent years. Many local businesses and local services, including health care and schools, have already closed or are on the brink of closure. There is a critical need to create economic development opportunities in the town to reverse this trend.
	There is an opportunity to create a wayfinding system in Bridgeport that draws attention to the amenities located outside the center of town.
	Historically, Bridgeport's primary recreation activity has been fishing. The activity is currently threatened by decreased stocking activities and invasive species issues. Efforts toward preserving the angling experience are important, but of equal importance is the diversification of recreation opportunities.
	US 395 through Bridgeport does not reflect small-town character as well as it could. Even with reduced vehicle travel lanes, perceptions of speeding remain along with a desire to increase the pedestrian friendliness and appeal of the street to encourage motorists to stop and explore.
<b>MONO BASIN</b>	Additional pedestrian trails to and from local activity nodes, such as the Mono Basin Visitor Center and Mono Lake.
	Residents express conflicting sentiments about additional growth. The concept of a sustainable, successful economy is supported, but the fear is that communities will need to become too big or "citified" to achieve this, sacrificing the rural characteristics and healthy natural environment valued by residents. The challenge is to appropriately balance economic development goals with the desired rural community characteristics and protection of the natural, scenic, historical and recreational values of the area. Growth does not necessarily mean becoming bigger; it could also mean improving what already exists within the current development footprint.
<b>LEE VINING</b>	<p>There is a desire for pedestrian improvements throughout Lee Vining and adjacent areas. These improvements may include:</p> <ul style="list-style-type: none"> <li>• Safe pedestrian crossings across US 395 in Lee Vining. Improvements to slow traffic may include: variations in pavement surface, raised intersections, reconfigured traffic lanes, flashing caution lights, and crosswalk landmarks.</li> <li>• Post and enforce slow speed limits along US 395 within Lee Vining to minimize conflicts with pedestrians crossing the highway. Speeds on US 395 along Mono Lake should also be lowered to minimize conflicts with recreational visitors to the lake.</li> <li>• Additional pedestrian trails to and from local activity nodes, such as the Mono Basin Visitor Center and Mono Lake.</li> <li>• There is need for bikeway improvements throughout the Mono Basin. There are opportunities to include wider shoulders adequate for bike use as part of scheduled road maintenance projects and to provide other improvements for bicyclists.</li> </ul>
<b>JUNE LAKE</b>	<p>Improved and expanded pedestrian trails along the June Lake Loop would improve safety, increase pedestrian traffic in commercial areas, and expand the range of recreational opportunities. Most of June Lake's trails are on public lands managed by USFS, and provide access to destinations outside the community. There is an opportunity for pedestrian trails on private lands to link major commercial areas with homes, lodging facilities and recreation nodes.</p> <p>Sidewalks along both sides of SR 158 through the Village are the only existing pedestrian features. Sidewalks feature either an asphalt or concrete surface and vary in width from approximately 4 ft., predominately on the west side, to 2 ft. on the eastside. Obstructions such</p>

	<p>as stairs with handrails to individual businesses, driveways to individual businesses, portable business signs and signposts, clutter the sidewalks.</p> <p>Caltrans field surveys have indicated that a June Lake Village project featuring a connector road, community parking lots, and pedestrian improvements could qualify for MAP-21 or ATP funding due to its multi-modal aspect of relieving traffic congestion.</p> <p>Cross country ski trails, which do not exist in the Loop, could link future development and provide an alternative to automobile travel.</p> <p>Potential cross country ski trail alignments in the Loop are severely limited by avalanche dangers. Other limiting factors include the availability of snow on a consistent basis and the existence of private property predominately in the flatter areas of June Lake.</p>
<b>MAMMOTH VICINITY/ UPPER OWENS</b>	<p>Maintaining the scenic corridor along US 395 and providing bike routes in the western portion of Long Valley on existing roadways.</p> <p>There is very little privately owned land in the Mammoth Vicinity Plan area. Significant parcels of private land occur along Hot Creek and in the valley west of Crowley Lake. LADWP owns large parcels of land in the Casa Diablo/Hot Creek area, at the Whitmore recreational area, and adjacent to Crowley Lake. The LADWP has no formal planning documents for those lands.</p> <p>All landowners agree that agricultural uses should be continued. There appears to be support for continuing current grazing management practices. A consensus among private landowners seems to be that agricultural uses are compatible with area recreational use.</p> <p>The majority of the landowners believe the area should focus on family resort/seasonal use and ranching rather than community development. Uses shall be of the type that attracts people for a limited time, not the type that promotes year-round occupancy. Some landowners believe that the historical land uses of agriculture, recreational fishing, and seasonal recreational use should take precedence over any new land use.</p> <p>There is a growing need for winter security to prevent vandalism, trespassing and poaching. Vandalism occurs in the winter and at times during hunting season. There is currently limited plowed winter road access to the area, limited cell phone reception, and no electrical service to all of the properties. The area also lacks structural fire protection and other similar services.</p>
<b>LONG VALLEY</b>	<p>Issues in the Long Valley area (Long Valley, McGee Creek, Crowley Lake/Hilton Creek, Aspen Springs, Sunny Slopes) include maintaining the rural recreational character while developing an effective and safe circulation system. Long Valley residents are interested in providing adequate emergency access, upgrading local roads to County standards, discouraging traffic in residential areas, and encouraging alternative transportation systems within the communities.</p> <p>Residents have expressed an interest in providing bike lanes in the following areas: around Crowley Lake to the Benton Crossing Rd; from Long Valley to the Convict Lake Rd so that bicyclists can ride off US 395; from Long Valley to Mammoth Lakes, possibly along the utility right of way; and along South Landing Rd.</p> <p>One local safety issue is providing routes for pedestrians &amp; bicyclists in the Crowley Lake/Hilton Creek area, along Crowley Lake Drive and South Landing Road. The recently completed bikeway along Crowley Lake Drive from South Landing Road to the community center has increased bicycle safety in Crowley Lake. Interest has also been expressed in developing improved trails along portions of the Whiskey Creek riparian corridor through portions of the community.</p> <p>Residents are also concerned about safety at the intersection of Lower Rock Creek Rd &amp; US 395. There is interest in eliminating that intersection and realigning Lower Rock Ck. Rd so that it terminates at Crowley Lake Dr. at Tom's Place and/or developing a separate Class I bicycle path from Tom's Place to Lower Rock Ck. Rd.</p> <p>There is interest in a regional trail network, including a multi-use trail from Long Valley to Mammoth Lakes and around Crowley Lake, and in identifying missing links between existing trails within and outside each community to connect points of interest. (Notably, the current Draft Land Use Element deletes the following Long Valley goal that was included in the 2001 Land Use Element: There is a desire to provide additional recreational development at Crowley Lake and throughout the area. There is a need, when considering additional recreational development at Crowley Lake, to designate restricted boating areas to protect critical water bird</p>

	nesting and rearing habitat. Within the communities, particularly Crowley Lake/Hilton Creek, there is a desire to develop additional neighborhood parks and a trail system connecting the parks and the communities.
<b>WHEELER CREST/ PARADISE</b>	<p>Residents are interested in providing an improved transportation system that protects and accesses the unique scenic, recreational and environmental resources of the area. Alternative transportation systems, both within the community area and linking the area to other communities in the region, are a major concern. Residents in Paradise are interested in providing a bicycle climbing lane on Lower Rock Ck. Rd. from the Inyo County line to Tom's Place.</p> <p>Recreation access and management are of concern to the residents.</p> <p>Residents are interested in providing an improved transportation system that protects and accesses the unique scenic, recreational and environmental resources of the area. Alternative transportation systems, both within the community area and linking the area to other communities in the region, are a major concern.</p>
<b>TRI-VALLEY</b>	<p>Residents are interested in safety and access to the rest of the county. Issues in this area include the provision of adequate and safe access to US 6 with sufficient distances between access points; safety along US 6 during hazardous conditions (primarily dust storms); the provision of rest stops along US 6; the inclusion of US 6 into the countywide scenic highway system for its historic significance; and the provision of a bike path connecting Bishop and Chalfant, either by widening the shoulders along US 6 or by providing an alternative route along the abandoned railway lines east of US 6. Residents also believe that there is a need for an emergency services facility and an emergency landing strip in Hammil Valley.</p> <p>Traffic speed through community areas and ensuring safe routes to schools, especially when a highway crossing is involved, are also concerns.</p>
<b>COUNTYWIDE</b>	<p>There is a growing need for additional trail systems throughout the county, both within and between community areas. There is potential to link existing trail systems (predominantly on public lands) to newly developed trail systems on private and county lands in community areas. State planning law (CGC §65302 (e) et seq.) requires every city and county to consider a trail system in its open space element. The law also requires every city and county to consider the feasibility of integrating its trail system with appropriate segments of the state system.</p> <p>Although bicycling is increasingly popular, the County lacks facilities specifically for bicyclists. Most bicycling occurs on roads where the shoulder may or may not be wide enough to accommodate bicyclists safely. Mountain bike use occurs throughout the county on dirt roads that are often unmarked. Local road sections with markings/signage for bike use include:</p> <ul style="list-style-type: none"> <li>• Bike Route along Crowley Lake Drive and South Landing Road from Tom's Place to Crowley Lake</li> <li>• Bike Route along Pearson Road in Crowley Lake;</li> <li>• North Shore Drive Bike Route in June Lake;</li> <li>• Share the Road signs along Benton Crossing Road;</li> <li>• Share the Road signs along SR 158 in June Lake;</li> <li>• Bicycle/pedestrian bridge over the East Walker River in Bridgeport;</li> <li>• Recently designated bike lane on Main Street (US 395) in Bridgeport; and</li> <li>• Eastside Lane Bike Route in the Antelope Valley.</li> </ul> <p>When rehabilitation work is planned for local/state highways, it is LTC policy to consult non-motorized users for the addition of bike/pedestrian facilities prior to construction.</p> <p>Most bicycle travel in the region now occurs on streets and highways without special bike facilities. This will probably continue in the future as bicycle commuting gains in popularity. Some street systems may be adequate for safe and efficient bicycle travel, and signing and striping for bicycle use may be unnecessary. In other cases, signing and/or striping can serve as a means to alert motorists of the presence of bicyclists that may be using the roadway.</p> <p>Caltrans is currently developing a California Statewide Bicycle and Pedestrian Plan (CSBPP) to implement the federal Department of Transportation policy that safe and convenient walking and bicycling facilities be incorporated into transportation projects. The project calls for plan</p>

	completion by February 2017. <sup>12</sup> Caltrans District 9 also maintains bike routes on several Mono County highways including US 395, SR 120, and SR 167. <sup>13</sup>
	In past RTPs and Circulation Elements, the Mono County LTC adopted the policy that the best way to enhance bicycle travel would be improved maintenance of roads that are used regularly by bicyclists. This would require increased attention to road shoulders where bicyclists ride. Caltrans has received good feedback for increased sweeping in its maintenance.
	It's important to consider bicycle needs in construction, safety and operational improvements. The county road system has been reviewed to determine bicyclists' needs in terms of increased safety and added bicycle lanes. Many rural highways are used for recreational travel and travel between communities. The development and maintenance of paved roadway shoulders with a wider 8-10" edge-line stripe would significantly improve the safety and capacity for bicyclists.
	There is an opportunity to create an ESRT system that would serve the needs of bikers and pedestrians in the Eastern Sierra. This proposed system would provide a regional non-wilderness trail system close to 300 miles long in Mono County. Fully 90% of the system would be on existing trails, old railroad alignments, wagon roads, and abandoned roads; 10% of the system would require new construction. The project has been developed to a conceptual level and requires further development, including community and agency outreach to refine alignments, projects and programs.
	In January 2000, the Mono County LTC voted to support the following requests from the Sierra Bicycling Foundation for bike route signing in Mono County on state highways and county routes: <ul style="list-style-type: none"> <li>• US 395 north and south from Tom's Place to Highway 158;</li> <li>• June Lake Loop (SR 158) in both directions;</li> <li>• SR 120 to Benton in both directions;</li> <li>• US 395 north of June Lake Junction to Lee Vining in both directions;</li> <li>• SR 203 from US 395 to Mammoth Mountain Ski Area, both directions;</li> <li>• Upper Rock Ck. Rd from Tom's Place to Mosquito Flat in both directions;</li> <li>• Lower Rock Ck. Rd from Tom's Place to Inyo County line, both directions;</li> <li>• Benton Crossing Road to SR 120 in both directions;</li> <li>• Crowley Lake Drive to Sherwin Creek Road in both directions; and</li> <li>• Owens River Road in both directions.</li> </ul> All routes except Upper Rock Ck. Rd. are identified in the RTP and Circulation Element as Regional Bike Routes. Caltrans wants to ensure that bike route signage on state highways is coordinated with bike route signage on other county routes, and plans to install signs after first verifying that routes proposed for bike route signage are appropriate for bicycling.
	There is a need for improved and expanded pedestrian facilities in community areas throughout the county, to improve safety and increase access to commercial core. Safe Routes to Schools routes can be developed in additional areas. The Complete Streets planning process is developing planning principles to convert communities in the county to more walkable communities. The focus is on Crowley Lake, Lee Vining, June Lake, and Bridgeport.
	Active Transportation Program funding provides an opportunity to develop and fund coordinated systems for non-motorized users. There may be an opportunity to target some of the lower-income areas of communities, if they qualify as disadvantaged communities.

Reflecting these priorities, the Mono County *Draft Conservation/Open Space Element* anticipates that natural resource-based outdoor recreation will continue to be the foundation of Mono County's economy, and identifies the maintenance of high quality of local recreation facilities and opportunities as a major goal. The *Element* cites five key issues in achieving this goal:

<sup>12</sup> Caltrans Headquarters Office of System Planning, *California Statewide Bicycle and Pedestrian Plan (CSBPP)*, Presentation Outline by the Active Transportation and Livability Communities Group. Feb. 19, 2015. Website: <http://cal.streetsblog.org/wp-content/uploads/sites/13/2015/05/Statewidebikeplaninfo.pdf>

<sup>13</sup> Caltrans District 9 *Bicycle Guide*: <http://www.dot.ca.gov/dist9/bicycle/bike.html>.

- Providing community recreation facilities for residents;
- Providing sufficient recreation facilities outside community areas for both residents and visitors;
- Providing connections and trail links between communities and various recreation areas;
- Using existing recreation areas and facilities more efficiently; and
- Ensuring that the type, location and timing of recreational development corresponds to the County's support capabilities.

The *Element* notes that federal land management agencies (USFS and BLM) are largely responsible for developing recreation policies and facilities since they manage most of the lands used for that purpose. Coordination between the County and the federal land management agencies is thus a top priority, although the efforts of both BLM and USFS have been hampered by continued funding reductions.

Many components of the current *Draft RTP/General Plan Update* seek to increase tourism, increase the use of existing recreational facilities, and to expand the number and range of recreational opportunities in coming years. Supportive policies and actions are evident in the Outdoor Recreational section of MEA, the *Draft Open Space and Conservation Element*, the *Draft Economic Development Strategy*, the *Draft Land Use Element*, the *Draft RTP*, the proposed ESRT system, the proposed Gateway Trail, the proposed Scenic Byways Plan and Main Street Revitalization efforts. Deterioration of facilities is an ongoing concern, particularly given the heavy use patterns that occur in Mono County. However, the facility policies of the Circulation Element, as well as the RTP, identify ongoing maintenance and upkeep as priorities for the County as a whole as well as many of the communities profiled in Table 4.9-2. The County also recognizes that the vast majority of recreational activities occur on surrounding public lands, and has therefore emphasized participation in collaborative efforts with Inyo NF, BLM, and other agencies as key to ensuring that future capacity is in place to meet recreational demands and needs. The policies, actions and related planning initiatives contained in the *Draft RTP/General Plan Update*, as summarized below, will reduce the potential for physical deterioration of recreational facilities to **less than significant levels**, and no supplemental mitigation recommendations are required.

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#### RTP/GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE POTENTIAL IMPACTS TO EXISTING PARK FACILITIES

Please refer to Table 4.9-3 in Appendix D.

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<p><b>IMPACT 4.9(b): Would implementation of the proposed RTP/General Plan Update include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?</b></p>
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**POTENTIALLY SIGNIFICANT IMPACT:** The *Draft RTP* anticipates that recreational use will continue to expand along the US 395 corridor, creating need for additional facilities, and the proposed *RTP/General Plan* update includes plans and programs that will expand the scope, extent and variety of recreational activities in Mono County. Also included are policies and actions for further recreational development in future years, including policies that promote the development of extensive regional trail systems, such as the ESRT and the Gateway Trail connecting Lee Vining to Yosemite National Park and other recreational features.

These plans and policies point to the numerous benefits of recreation. In Mono County, these benefits are particularly important with respect to economic development since tourism is the main driver of the local economy. However, the benefits extend well beyond economic effects, as recognized in numerous Healthy Communities policies of the *Draft Land Use Element*. Recreation increases the opportunities for physical activity and thereby helps to control obesity, boost the immune system, diminish the risk of disease, and increase life expectancy. Parks and recreation can aid in reducing depression, relieving stress, improving self-esteem and personal growth. The social benefits of recreation



include strengthening communities, promoting social bonds and supporting youth, and the proximity to parks and recreation facilities leads to safer, cleaner neighborhoods and encourages volunteerism and stewardship. These benefits can act in tandem.<sup>14</sup> In its comments to the USFS concerning Inyo NF *Draft Forest Plan*, Mono County indicated that “*planning is and will remain heavily influenced by demands for Inyo NF recreation opportunities, access and facilities*” and sought input from Inyo NF on how the county RTP/General Plan update can be conducted to optimize the partnership value to Inyo NF including opportunities to jointly implement initiatives, planning and implementing actions where appropriate.

Notwithstanding the substantial opportunities and benefits described above, recreation is also associated with significant environmental impacts. The study of how recreation impacts the environment (a science known as ‘recreation ecology’) is still relatively young. The first recreation ecology textbook was published in 1987, and although many studies have been conducted, the body of knowledge is far from complete.<sup>15</sup> The current understanding of recreation ecology is most thorough with respect to the magnitude and nature of recreational impacts on vegetation and soil. The most common type of recreational impact (trampling) is known to damage plants, displace soil organisms, and compact mineral soils – all of which in turn have secondary impacts that ultimately result in localized but severe (and sometimes long-lasting) changes in overall ecological structure, composition and function. Substantial environmental effects are also known to be caused by firewood collection, campfire building, trail construction and maintenance, the grazing of pack animals, human intrusion into wildlife habitat, and the use of motor vehicles.

A recent study by the California Department of Parks and Recreation extended the range of impacts from hiking, jogging, horseback riding, and photography to include nutrient loading, and introduction of non-native invasive plant species, habitat fragmentation and edge effects. Recreation can also impact birds, causing at least temporary effects on bird behavior and movement; road noise has been shown to negatively affect birds (reduced nesting, etc.) at distances of about 1/2 mile and it is hypothesized that trail noise might also affect birds, possibly over shorter distances.

Microclimatic changes (including increased sunlight and rainfall due to reduced canopy, increased wind, decreased humidity, changes in temperature regime, etc.) have also been documented in forest edges near clearings, and it is anticipated that similar effects may occur along forest trails, if wide enough to enlarge the canopy. Nutrient enrichment from horse manure and urine may favor invasion of weedy species along horse trails, potentially increasing the abundance of non-native grasses, and a decline and decreased diversity of native grasses. The magnitude of such effects is determined by use patterns, environmental characteristics and management practices. Key elements in determining use pattern impacts include the amount and distribution of use, the type and behavior of use, and the timing of use and resilience of the environment. The relationship between use and resulting impacts is not linear. However, small increments of recreational use cause substantial impact on most types of soils and vegetation, and the rate of increased impact decreases as overall use increases.

There is also a significant relationship between impact and type of use. Use of campfires and grazing of pack stock both have impacts that can be avoided by foregoing campfires and pack outfitters. Horses cause substantially more trail erosion than hikers or mountain bikers (or even llamas, a pack alternative), and hikers with dogs disturb wildlife more than hikers without. Impacts also vary depending on weather conditions: trails are more subject to erosion in wet conditions than dry, and impacts to wildlife are more severe during certain times of year (mating and birthing) and certain times of day (feeding times). Other factors governing the magnitude of impact include resistance (the ability to tolerate use without damage) and resilience (ability to recover from damage); some vegetation types are far more resistant and resilient than others.

There are relatively few empirical studies that assess the efficacy of actions taken to mitigate recreation impacts. However, the work done to date suggests that impacts can be minimized by concentrating use at a small number of

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<sup>14</sup> *The Health and Social Benefits of Recreation*, California Resources Agency (an Element of the California Outdoor Recreation Planning Program), March 2005. Accessed at the California State Parks website: <http://www.parks.ca.gov/pages/795/files/benefits%20final%20online%20v6-1-05.pdf>

<sup>15</sup> Sources for the discussion of recreation ecology in this section include: *Environmental Impacts of Outdoor Recreation in Wildlands*, David N. Cole; article obtained from <http://www.leopold.wilderness.net/research/fprojects/docs12/issrmchapter.pdf>; and *Ecological Impacts of Recreational Use of Trails: A Literature Review*, Marilyn Jordan Ph.D., The Nature Conservancy, May 4, 2000. Article obtained from California Department of Parks and Recreation (<http://www.parks.ca.gov/pages/795/files/ecologicalimpactsrecreationalusers.pdf>).

sites -- a finding that is now at the heart of management policies requiring use of designated campsites and 'leave no trace' practices.

Concerns similar to those noted above are also cited in the Inyo NF *Forest Plan*. The *Forest Plan* indicates that there are 1,612 miles of designated trails on the forest, including 340 miles of motorized trails, 225 miles of over-snow motorized trails, 999 miles of standard non-motorized trails, and 48 miles of over-snow non-motorized trails; the Plan notes that some of the motorized trails and roads have been created by visitors to retrieve firewood for personal use and to access dispersed camping areas. Some of these improvised routes have had undesirable impacts including degraded water quality in areas where erosion occurred near streams, and damage to cultural resources where roads traversed archeological sites (discussed in §4.7, Cultural Resources). These impacts led Inyo NF to prohibit motorized use on roughly 660 miles of unauthorized routes (as well as the addition of other roads and trails). The *Forest Plan* finds that unmanaged recreation in general (rock climbing routes at newly discovered crags, user-created mountain bike trails, camping in sensitive ecosystems such as stream zones, and vehicle use outside authorized routes) can negatively impact ecosystem health through the spread of invasive species, overfishing, and degradation of water quality, and also adversely affect visitor experience as a result of conflicting or competing uses and overcrowding.

More recently, the USFS and CDFW have studied the impacts of fish stocking (to support recreational fishing activities) on native fauna. Results of these studies indicate that the introduction of trout into lakes throughout the Sierra Nevada mountain range has eliminated the mountain yellow-legged frog from over 95% of its historic range. In turn, this has altered the life-cycle and reduced the population numbers of other lake macro-invertebrates and zooplankton, thereby reducing the intensity of insect hatches and ultimately affecting bird migration patterns. The Inyo NF forecasts that climate change and other stressors will further disrupt habitat for lake-associated species. As conservation and resource stewardship have become increasingly important to sustainable recreation, Inyo NF has concluded that adaptive management will be essential, particularly for unmanaged recreation.

The *Draft RTP* notes that recreational traffic creates specific problems for the interregional and local transportation and circulation system, causing recurrent congestion patterns that are typically found in more urban areas, as well as safety concerns associated with slow-moving recreational vehicles (particularly on two-lane roadways) and reduced livability of Mono County communities. The RTP anticipates that recreational use will continue to expand along the US 395 corridor, creating need for additional facilities and ensuring that safety concerns will remain a high priority for County planners.

Recreation ecology is a young but rapidly expanding field of research, with a wide range of current and potential applications (including ecotourism). Studies undertaken to date have already led to a clearer understanding of how recreation affects environmental resources, and enabled resource managers to identify more effective ways to restore damaged resources and establish more appropriate use quotas. The County will draw on this body of knowledge as it implements the recreational programs, plans and policies contained in the current RTP/General Plan update. These preventive and mitigating activities are anticipated to substantially reduce the impacts of recreational development on the environment, but ***not to a level that is less than significant***. Note that all future recreation improvements are subject to CEQA compliance requirements at the time individual projects are proposed for implementation. Relevant objectives, policies and actions are provided in the section below.

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#### **RTP/GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE POTENTIAL IMPACTS ASSOCIATED WITH NEW RECREATIONAL FACILITIES**

Please refer to Table 4.9-3 in Appendix D.

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